



Maximum Permissible Exposure (MPE) Evaluation

Applicant : JVC KENWOOD Corporation
Equipment : UHF DIGITAL BASE-REPEATER
Model No. : TKR-D810-K2
FCC ID : K44452501
IC CN and UPN : 282F-452501

MPE Calculations

FCC:1.1310, IC: RSS-102 issus 5

$$S = \frac{PG}{4\pi R^2}$$

$$R = \sqrt{\frac{PG}{4\pi S}}$$

Where:

S=Power density (in appropriate units, e.g. mW/cm²)

P=Power input to antenna (in appropriate units, e.g., mW)

G = Power gain of the antenna in the direction of interest relative to an isotropic radiator

R=Distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Tx Frequency=	406 to 470	(MHz)	: FCC
	406 to 430 , 450 to 470	(MHz)	: IC
Maximum peak power=	46.07	(dBm) (=40.5W)	
Antenna gain=	2.15	(dBi)	

S= 0.27 (mW/cm²) : FCC

0.16 (mW/cm²) : IC

P= 24300.00 (mW) (=Maximum peak power x 120% x Dutycycle50%)

G= 1.64 (numeric)

R= 108.25 (cm) : FCC

141.34 (cm) : IC

Calculated minimum separation distance from antenna : FCC : 108.25 (cm)
IC : 141.34 (cm)